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Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Keisha Douglas

Timestamp: Tue Sep 04 14:58:00 EDT 2007

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Application No: 10573658 Version No: 1.0

Input Set:**Output Set:**

Started: 2007-08-20 10:49:56.980
Finished: 2007-08-20 10:49:59.210
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 230 ms
Total Warnings: 59
Total Errors: 32
No. of SeqIDs Defined: 59
Actual SeqID Count: 59

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
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W 213	Artificial or Unknown found in <213> in SEQ ID (12)
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Input Set :

Output Set :

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Started: 2007-08-20 10:49:56.980
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Finished: 2007-08-20 10:49:59.210

Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 230 ms

Total Warnings: 59

Total Errors: 32

No. of SeqIDs Defined: 59

Actual SeqID Count: 59

Error code	Error Description
	This error has occurred more than 20 times, will not be displayed
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
E 336	Empty lines found between the proteins and the dna
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SEQUENCE LISTING

<110> MCKERRACHER, LISA
LASKO, DANA

<120> CLOSTRIDIUM BOTULINUM C3 EXOTRANSFERASE COMPOSITIONS AND METHODS
FOR TREATING TUMOUR SPREADING

<130> 1912-0330PUS1

<140> 10573658

<141> 2007-08-20

<150> PCT/CA04/01763

<151> 2004-09-29

<150> US 10/902,879

<151> 2004-08-02

<150> US 60/506,162

<151> 2003-09-29

<160> 59

<170> PatentIn version 3.1

<210> 1

<211> 27

<212> DNA

<213> Artificial Sequence

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<223> Oligonucleotide used to remove the stop codon from ADP-ribosyl
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<400> 1

gaattcttta ggattgatag ctgtgcc

27

<210> 2

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide used to remove the stop codon from ADP-ribosyl
transferase C3 (Clostridium botulinum) cDNA.

<400> 2

ggtggcgacc atcctccaaa a

21

<210> 3

<211> 888

<212> DNA

<213> Artificial Sequence

<220>

<223> Sequence of C3APL: includes ADP-ribosyl transferase C3
(Clostridium botulinum) and Antennapedia sequence.

<220>

<221> CDS

<222> (1)..(888)

<400> 3

gga tcc tct aga gtc gac ctg cag gca tgc aat gct tat tcc att aat	48
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1 5 10 15	

caa aag gct tat tca aat act tac cag gag ttt act aat att gat caa	96
Gln Lys Ala Tyr Ser Asn Thr Tyr Gln Glu Phe Thr Asn Ile Asp Gln	
20 25 30	

gca aaa gct tgg ggt aat gct cag tat aaa aag tat gga cta agc aaa	144
Ala Lys Ala Trp Gly Asn Ala Gln Tyr Lys Lys Tyr Gly Leu Ser Lys	
35 40 45	

tca gaa aaa gaa gct ata gta tca tat act aaa agc gct agt gaa ata	192
Ser Glu Lys Glu Ala Ile Val Ser Tyr Thr Lys Ser Ala Ser Glu Ile	
50 55 60	

aat gga aag cta aga caa aat aag gga gtt atc aat gga ttt cct tca	240
Asn Gly Lys Leu Arg Gln Asn Lys Gly Val Ile Asn Gly Phe Pro Ser	
65 70 75 80	

aat tta ata aaa caa gtt gaa ctt tta gat aaa tct ttt aat aaa atg	288
Asn Leu Ile Lys Gln Val Glu Leu Leu Asp Lys Ser Phe Asn Lys Met	
85 90 95	

aag acc cct gaa aat att atg tta ttt aga ggc gac gac cct gct tat	336
Lys Thr Pro Glu Asn Ile Met Leu Phe Arg Gly Asp Asp Pro Ala Tyr	
100 105 110	

tta gga aca gaa ttt caa aac act ctt ctt aat tca aat ggt aca att	384
Leu Gly Thr Glu Phe Gln Asn Thr Leu Leu Asn Ser Asn Gly Thr Ile	
115 120 125	

aat aaa acg gct ttt gaa aag gct aaa gct aag ttt tta aat aaa gat	432
Asn Lys Thr Ala Phe Glu Lys Ala Lys Ala Lys Phe Leu Asn Lys Asp	
130 135 140	

aga ctt gaa tat gga tat att agt act tca tta atg aat gtc tct caa	480
Arg Leu Glu Tyr Gly Tyr Ile Ser Thr Ser Leu Met Asn Val Ser Gln	
145 150 155 160	

ttt gca gga aga cca att att aca caa ttt aaa gta gca aaa ggc tca	528
Phe Ala Gly Arg Pro Ile Ile Thr Gln Phe Lys Val Ala Lys Gly Ser	
165 170 175	

aag gca gga tat att gac cct att agt gct ttt cag gga caa ctt gaa	576
Lys Ala Gly Tyr Ile Asp Pro Ile Ser Ala Phe Gln Gly Gln Leu Glu	

180	185	190	
atg ttg ctt cct aga cat agt act tat cat ata gac gat atg aga ttg			624
Met Leu Leu Pro Arg His Ser Thr Tyr His Ile Asp Asp Met Arg Leu			
195	200	205	
tct tct gat ggt aaa caa ata ata att aca gca aca atg atg ggc aca			672
Ser Ser Asp Gly Lys Gln Ile Ile Ile Thr Ala Thr Met Met Gly Thr			
210	215	220	
gct atc aat cct aaa gaa ttc gtg atg gaa tcc cgc aaa cgc gca agg			720
Ala Ile Asn Pro Lys Glu Phe Val Met Glu Ser Arg Lys Arg Ala Arg			
225	230	235	240
cag aca tac acc cgg tac cag act cta gag cta gag aag gag ttt cac			768
Gln Thr Tyr Thr Arg Tyr Gln Thr Leu Glu Leu Glu Lys Glu Phe His			
245	250	255	
ttc aat cgc tac ttg acc cgt cgg cga agg atc gag atc gcc cac gcc			816
Phe Asn Arg Tyr Leu Thr Arg Arg Arg Arg Ile Glu Ile Ala His Ala			
260	265	270	
ctg tgc ctc acg gag cgc cag ata aag att tgg ttc cag aat cgg cgc			864
Leu Cys Leu Thr Glu Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg			
275	280	285	
atg aag tgg aag aag gag aac tga			888
Met Lys Trp Lys Lys Glu Asn			
290	295		

<210> 4
 <211> 295
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Sequence of C3APLT: includes ADP-ribosyl transferase C3
 (Clostridium botulinum) and Antennapedia sequence.

<400> 4

Gly Ser Ser Arg Val Asp Leu Gln Ala Cys Asn Ala Tyr Ser Ile Asn
1 5 10 15

Gln Lys Ala Tyr Ser Asn Thr Tyr Gln Glu Phe Thr Asn Ile Asp Gln
20 25 30

Ala Lys Ala Trp Gly Asn Ala Gln Tyr Lys Lys Tyr Gly Leu Ser Lys
35 40 45

Ser Glu Lys Glu Ala Ile Val Ser Tyr Thr Lys Ser Ala Ser Glu Ile
50 55 60

Asn	Gly	Lys	Leu	Arg	Gln	Asn	Lys	Gly	Val	Ile	Asn	Gly	Phe	Pro	Ser
65					70					75					80
Asn	Leu	Ile	Lys	Gln	Val	Glu	Leu	Leu	Asp	Lys	Ser	Phe	Asn	Lys	Met
				85					90					95	
Lys	Thr	Pro	Glu	Asn	Ile	Met	Leu	Phe	Arg	Gly	Asp	Asp	Pro	Ala	Tyr
			100					105					110		
Leu	Gly	Thr	Glu	Phe	Gln	Asn	Thr	Leu	Leu	Asn	Ser	Asn	Gly	Thr	Ile
		115					120					125			
Asn	Lys	Thr	Ala	Phe	Glu	Lys	Ala	Lys	Ala	Lys	Phe	Leu	Asn	Lys	Asp
	130					135					140				
Arg	Leu	Glu	Tyr	Gly	Tyr	Ile	Ser	Thr	Ser	Leu	Met	Asn	Val	Ser	Gln
145					150					155					160
Phe	Ala	Gly	Arg	Pro	Ile	Ile	Thr	Gln	Phe	Lys	Val	Ala	Lys	Gly	Ser
				165				170						175	
Lys	Ala	Gly	Tyr	Ile	Asp	Pro	Ile	Ser	Ala	Phe	Gln	Gly	Gln	Leu	Glu
			180					185					190		
Met	Leu	Leu	Pro	Arg	His	Ser	Thr	Tyr	His	Ile	Asp	Asp	Met	Arg	Leu
		195					200					205			
Ser	Ser	Asp	Gly	Lys	Gln	Ile	Ile	Ile	Thr	Ala	Thr	Met	Met	Gly	Thr
	210					215					220				
Ala	Ile	Asn	Pro	Lys	Glu	Phe	Val	Met	Glu	Ser	Arg	Lys	Arg	Ala	Arg
225					230					235					240
Gln	Thr	Tyr	Thr	Arg	Tyr	Gln	Thr	Leu	Glu	Leu	Glu	Lys	Glu	Phe	His
				245					250					255	
Phe	Asn	Arg	Tyr	Leu	Thr	Arg	Arg	Arg	Arg	Ile	Glu	Ile	Ala	His	Ala
			260					265					270		
Leu	Cys	Leu	Thr	Glu	Arg	Gln	Ile	Lys	Ile	Trp	Phe	Gln	Asn	Arg	Arg
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Met Lys Trp Lys Lys Glu Asn
290 295

<210> 5
<211> 774
<212> DNA
<213> Artificial Sequence

<220>
<223> Sequence of C3APS: Includes ADP-ribosyl transferase C3
(Clostridium botulinum) and Antennapedia sequence.

<220>
<221> CDS
<222> (1)..(774)

<400> 5
gga tcc tct aga gtc gac ctg cag gca tgc aat gct tat tcc att aat 48
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1 5 10 15

caa aag gct tat tca aat act tac cag gag ttt act aat att gat caa 96
Gln Lys Ala Tyr Ser Asn Thr Tyr Gln Glu Phe Thr Asn Ile Asp Gln
20 25 30

gca aaa gct tgg ggt aat gct cag tat aaa aag tat gga cta agc aaa 144
Ala Lys Ala Trp Gly Asn Ala Gln Tyr Lys Lys Tyr Gly Leu Ser Lys
35 40 45

tca gaa aaa gaa gct ata gta tca tat act aaa agc gct agt gaa ata 192
Ser Glu Lys Glu Ala Ile Val Ser Tyr Thr Lys Ser Ala Ser Glu Ile
50 55 60

aat gga aag cta aga caa aat aag gga gtt atc aat gga ttt cct tca 240
Asn Gly Lys Leu Arg Gln Asn Lys Gly Val Ile Asn Gly Phe Pro Ser
65 70 75 80

aat tta ata aaa caa gtt gaa ctt tta gat aaa tct ttt aat aaa atg 288
Asn Leu Ile Lys Gln Val Glu Leu Leu Asp Lys Ser Phe Asn Lys Met
85 90 95

aag acc cct gaa aat att atg tta ttt aga ggc gac gac cct gct tat 336
Lys Thr Pro Glu Asn Ile Met Leu Phe Arg Gly Asp Asp Pro Ala Tyr
100 105 110

tta gga aca gaa ttt caa aac act ctt ctt aat tca aat ggt aca att 384
Leu Gly Thr Glu Phe Gln Asn Thr Leu Leu Asn Ser Asn Gly Thr Ile
115 120 125

aat aaa acg gct ttt gaa aag gct aaa gct aag ttt tta aat aaa gat 432
Asn Lys Thr Ala Phe Glu Lys Ala Lys Ala Lys Phe Leu Asn Lys Asp
130 135 140

aga ctt gaa tat gga tat att agt act tca tta atg aat gtc tct caa 480
Arg Leu Glu Tyr Gly Tyr Ile Ser Thr Ser Leu Met Asn Val Ser Gln

145	150	155	160	
ttt gca gga aga cca att att aca caa ttt aaa gta gca aaa ggc tca				528
Phe Ala Gly Arg Pro Ile Ile Thr Gln Phe Lys Val Ala Lys Gly Ser				
165	170	175		
aag gca gga tat att gac cct att agt gct ttt cag gga caa ctt gaa				576
Lys Ala Gly Tyr Ile Asp Pro Ile Ser Ala Phe Gln Gly Gln Leu Glu				
180	185	190		
atg ttg ctt cct aga cat agt act tat cat ata gac gat atg aga ttg				624
Met Leu Leu Pro Arg His Ser Thr Tyr His Ile Asp Asp Met Arg Leu				
195	200	205		
tct tct gat ggt aaa caa ata ata att aca gca aca atg atg ggc aca				672
Ser Ser Asp Gly Lys Gln Ile Ile Ile Thr Ala Thr Met Met Gly Thr				
210	215	220		
gct atc aat cct aaa gaa ttc cgc cag atc aag att tgg ttc cag aat				720
Ala Ile Asn Pro Lys Glu Phe Arg Gln Ile Lys Ile Trp Phe Gln Asn				
225	230	235	240	
cgt cgc atg aag tgg aag aag gtc gac tcg agc ggc cgc atc gtg act				768
Arg Arg Met Lys Trp Lys Lys Val Asp Ser Ser Gly Arg Ile Val Thr				
245	250	255		
gac tga				774
Asp				

<210> 6

<211> 257

<212> PRT

<213> Artificial Sequence

<220>

<223> Sequence of C3APS: Includes ADP-ribosyl transferase C3 (Clostridium botulinum) and Antennapedia sequence.

<400> 6

Gly Ser Ser Arg Val Asp Leu Gln Ala Cys Asn Ala Tyr Ser Ile Asn			
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Gln Lys Ala Tyr Ser Asn Thr Tyr Gln Glu Phe Thr Asn Ile Asp Gln			
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Ala Lys Ala Trp Gly Asn Ala Gln Tyr Lys Lys Tyr Gly Leu Ser Lys			
35	40	45	
Ser Glu Lys Glu Ala Ile Val Ser Tyr Thr Lys Ser Ala Ser Glu Ile			
50	55	60	

Asn Gly Lys Leu Arg Gln Asn Lys Gly Val Ile Asn Gly Phe Pro Ser
65 70 75 80

Asn Leu Ile Lys Gln Val Glu Leu Leu Asp Lys Ser Phe Asn Lys Met
85 90 95

Lys Thr Pro Glu Asn Ile Met Leu Phe Arg Gly Asp Asp Pro Ala Tyr
100 105 110

Leu Gly Thr Glu Phe Gln Asn Thr Leu Leu Asn Ser Asn Gly Thr Ile
115 120 125

Asn Lys Thr Ala Phe Glu Lys Ala Lys Ala Lys Phe Leu Asn Lys Asp
130 135 140

Arg Leu Glu Tyr Gly Tyr Ile Ser Thr Ser Leu Met Asn Val Ser Gln
145 150 155 160

Phe Ala Gly Arg Pro Ile Ile Thr Gln Phe Lys Val Ala Lys Gly Ser
165 170 175

Lys Ala Gly Tyr Ile Asp Pro Ile Ser Ala Phe Gln Gly Gln Leu Glu
180 185 190

Met Leu Leu Pro Arg His Ser Thr Tyr His Ile Asp Asp Met Arg Leu
195 200 205

Ser Ser Asp Gly Lys Gln Ile Ile Ile Thr Ala Thr Met Met Gly Thr
210 215 220

Ala Ile Asn Pro Lys Glu Phe Arg Gln Ile Lys Ile Trp Phe Gln Asn
225 230 235 240

Arg Arg Met Lys Trp Lys Lys Val Asp Ser Ser Gly Arg Ile Val Thr
245 250 255

Asp

<210> 7
<211> 24
<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide used in the amplification of Antennapedia sequence

<400> 7
gaatcccgca aacgcgcaag gcag 24

<210> 8
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> Oligonucleotide used in the amplification of Antennapedia sequence

<400> 8
tcagttctcc ttcttccact tcatgcg 27

<210> 9
<211> 54
<212> DNA
<213> Artificial Sequence

<220>

<223> Oligonucleotide used in the cloning of sequences from Antennapedia

<400> 9
aattccgcca gatcaagatt tggttccaga atcgtcgcat gaagtggaag aagg 54

<210> 10
<211> 54
<212> DNA
<213> Artificial Sequence

<220>

<223> Oligonucleotide used in the cloning of sequences from Antennapedia

<400> 10
ggcgggtctag ttctaaacca agctcttagc agcgtagttc accttcttcc agct 54

<210> 11
<211> 26
<212> DNA
<213> Artificial Sequence

<220>

<223> Oligonucleotide used in the amplification of a sequence corresponding to amino acid 27-72 of HIV-1 Tat

<400> 11
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<210> 12
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide used in the amplification of a sequence
corresponding to amino acid 27-72 of HIV-1 Tat

<400> 12
accagccacc accttctgat a 21

<210> 13
<211> 876
<212> DNA
<213> Artificial Sequence

<220>
<223> Sequence of C3-TL: Includes ADP-ribosyl transferase C3
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<220>
<221> CDS
<222> (1)..(876)

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Gly Ser Ser Arg Val Asp Leu Gln Ala Cys Asn Ala Tyr Ser Ile Asn
1 5 10 15
caa aag gct tat tca aat act tac cag gag ttt act aat att gat caa 96
Gln Lys Ala Tyr Ser Asn Thr Tyr Gln Glu Phe Thr Asn Ile Asp Gln
20 25 30
gca aaa gct tgg ggt aat gct cag tat aaa aag tat gga cta agc aaa 144
Ala Lys Ala Trp Gly Asn Ala Gln Tyr Lys Lys Tyr Gly Leu Ser Lys
35 40 45
tca gaa aaa gaa gct ata gta tca tat act aaa agc gct agt gaa ata 192
Ser Glu Lys Glu Ala Ile Val Ser Tyr Thr Lys Ser Ala Ser Glu Ile
50 55 60
aat gga aag cta aga caa aat aag gga gtt atc aat gga ttt cct tca 240
Asn Gly Lys Leu Arg Gln Asn Lys Gly Val Ile Asn Gly Phe Pro Ser
65 70 75 80
aat tta ata aaa caa gtt gaa ctt tta gat aaa tct ttt aat aaa atg 288
Asn Leu Ile Lys Gln Val Glu Leu Leu Asp Lys Ser Phe Asn Lys Met